

REMARKS

Claims 3-18, 21-23 and 27-31 are pending in this application, of which claims 18, 23 and 31 have been amended. No new claims have been added.

Claim 23 stands rejected under 35 USC §102(b) as anticipated by U.S. Patent 5,396,157 to Hackett et al. (hereinafter "**Hackett et al.**") and claims 3-18, 21-22 and 27-31 stand rejected under 35 USC §103(a) as unpatentable over **Hackett et al.** in view of JP Publication 06-284309 to Watabe Junzo et al. (hereinafter "**Watabe Junzo et al.**").

Applicants respectfully traverse this rejection.

In Applicants' previous response of January 14, 2004, it was argued that the following distinctions exist between the claimed invention and **Hackett et al.**:

1. No predetermined value for the luminance in a luminance change portion is shown in Fig. 4. Fig. 4 of **Hackett et al.** appears to show only two (2) values of luminance.
2. The limitation in the last paragraph of claim 22 of the instant application may be interpreted to mean that "the part of the scanning line thus moves depending on the amount of the change in the luminance and the level of the luminance", as discussed on page 22, lines 3-5 of the specification. **Hackett et al.** fails to disclose this feature.
3. **Hackett et al.** fails to disclose the frequency domain emphasis circuit recited in claims 23-24 of the instant application.

Column 2, lines 44-48 disclose that the differences in luminance are passed to comparators 521, 522, where they are thresholded and converted to binary signals A and B. The

Examiner urges that this passage, therefore, discloses the “predetermined value for luminance” claimed in the present invention.

In response the Examiner has stated:

As discussed in the last Final Office Action, with respect to item 1) above, predetermined value for the luminance in a luminance change portion is disclosed in column 2, lines 44-48 of Hackett et al. Hackett et al discloses in column 2, lines 44-48 that “these differences are then passed to a first comparator 521 and to a second comparator 522, respectively, **where they are thresholded and converted to binary signals A and B**”. The claimed predetermined value for the luminance in a luminance change portion is anticipated by the threshold value of the first comparator 521 or the second comparator 522.

With respect to item 2) above, as discussed above, Hackett et al discloses in column 2, lines 44-48 that “these differences are then passed to a first comparator 521 and to a second comparator 522, respectively, **where they are thresholded and converted to binary signals A and B**.” From the above passages, it is clear that the part of the scanning line thus moves Hackett et al is depend on the amount of the change in luminance (the threshold value of first comparator 521 or the second comparator 522) and the level of the luminance (the threshold value of first comparator 521 or the second comparator 522). [Sic.]

Applicants respectfully disagree. As noted in Applicants’ previous response and apparently not understood by the Examiner, this passage is directed to only values of differences in luminance, and not to the values of the level of the luminance itself for each compared scanning line.

Thus, Hackett et al. fails to disclose items #1 and #2 above.

With respect to item #3 above, the Examiner urges that logic circuit 53 corresponds to the frequency domain emphasis circuit claimed in the instant application because it “emphasizes the whole frequency domain of the television”.

This is in contrast to the present invention, in which the frequency domain emphasis circuit emphasizes a “predetermined frequency domain of said movement control signal produced by said movement control circuit”, as recited in claim 23. The logic circuit 534 of **Hackett et al.** cannot be said to emphasize any particular “predetermined frequency domain”.

In order to clarify that a predetermined frequency domain is not the same as the “whole frequency domain of the television”, claims 18-23 have been amended to recite “a frequency domain emphasis circuit for emphasizing a predetermined portion of a frequency domain of said movement control circuit” Method claim 31 has been amended in a similar manner.

As noted in Applicants’ last response, it should be noted that claims 3, 21 and 27 are directed to scanning line modulation in a luminance change portion applied to bidirectional scanning (forward and backward deflection). Claim 3 recites a parallel scanning signal for making the forward and backward scanning lines parallel and a movement control signal for controlling the movement in the vertical direction of the scanning lines are synthesized with each other and the synthesized signal are applied to a vertical velocity modulation coil.

This subject matter of the present invention produces the effect of miniaturization and reduction in cost because a vertical velocity modulation coil functions as a dual source for generating a magnetic field for velocity modulation in the vertical direction and for generating a magnetic field for parallel scanning.

The cited references fail to teach or suggest an arrangement for applying scanning line modulation in a luminance change portion to bidirectional scanning and sharing of the coil.

In particular, the cited references fail to disclose:

1. the structure of the vertical velocity modulation circuit of claim 3;
2. the structure of the vertical velocity modulation apparatus of claim 21; and
3. the step of modulating the scanning speed of claim 27.

In summary, all independent claims in the present invention base the control of vertical movement of the scanning lines on both of:

1. the difference between the luminance of the scanning line and adjacent scanning lines, and
2. the level of luminance of the part of the scanning line of the object.

Hackett et al. is concerned only with the difference in luminance, and not the level of luminance.

Thus, the prior art rejections should all be withdrawn.

In view of the aforementioned amendments and accompanying remarks, claims 3-18, 21-23 and 27-31, as amended, are in condition for allowance, which action, at an early date, is requested.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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